CLAIMS:

1.          A encoding method for encoding a description element of an instance of an XML-like schema defining a hierarchical structure of description elements, said hierarchical structure comprising hierarchical levels, parent description elements and child description elements, said description element to be encoded comprising a content, characterized in that it consists in:

-          using at least one table derived from said schema, said table containing identification information for solely identifying each description element in a hierarchical level, and structural information for retrieving any child description element from its parent description element,

-          scanning a hierarchical memory representation of said instance from parent description elements to child description elements until reaching the description element to be encoded, and retrieving the identification information of each scanned description element,

-          encoding said description element to be encoded as a fragment comprising said content and a sequence of the retrieved identification information.

2.          A coding method as claimed in claim 1, characterized in that when a description element is defined in the schema as possibly having multiple occurrences, said table further comprises for said description element an occurrence information for indicating that said description element may have multiple occurrences in an instance, and when an occurrence having a given rank is scanned during the encoding, the corresponding retrieved identification information is indexed with said rank.

3.          A decoding method for decoding a fragment comprising a content and a sequence of identification information, characterized in that it consists in:

-          using at least one table derived from an XML-like schema, said schema defining a hierarchical structure of description elements comprising hierarchical levels, parent description elements and child description elements, said table containing identification information for solely identifying each description element in a hierarchical

level, and structural information for retrieving any child description element from its parent description element,

-         scanning said sequence identification information by identification information,

5   -         at each step searching in said table for the description element associated to the current identification information and adding said description element to a hierarchical memory representation of an instance of said schema if not already contained in said hierarchical memory representation,

-         adding said content to the description element of said hierarchical memory
10 representation that is associated to the last identification information of said sequence.

4.         A decoding method as claimed in claim 3, characterized in that when a description element is defined in the schema as possibly having multiple occurrences, said table further comprises for said description element an occurrence information for indicating
15 that said description element may have multiple occurrences in an instance, and when said sequence comprises an indexed identification information, said index is interpreted as an occurrence rank for the associated description element, same description element(s) of lower rank(s) being added to said hierarchical memory representation if not already contained in it.

20   5.        A encoder for encoding a description element of an instance of an XML-like schema defining a hierarchical structure of description elements, said hierarchical structure comprising hierarchical levels, parent description elements and child description elements, said description element to be encoded comprising a content, characterized in that it comprises:

25   -         a memory for storing at least one table derived from said schema, said table containing identification information for solely identifying each description element in a hierarchical level, and structural information for retrieving any child description element from its parent description element,

-         computing means for scanning said instance from parent description elements
30 to child description elements until reaching the description element to be encoded, and retrieving the identification information of each scanned description element, and for encoding said description element to be encoded as a fragment comprising said content and a sequence of the retrieved identification information.

6.          A decoder for decoding a fragment comprising a content and a sequence of identification information, characterized in that it comprises:

-          a memory for storing at least one table derived from an XML-like schema, said schema defining a hierarchical structure of description elements comprising hierarchical levels, parent description elements and child description elements, said table containing identification information for solely identifying each description element in a hierarchical level, and structural information for retrieving any child description element from its parent description element,

-          computing means for:

scanning said sequence identification information by identification information, at each step searching in said table for the description element associated to the current identification information and adding said description element to a hierarchical memory representation of an instance of said schema if not already contained in said hierarchical memory representation,

adding said content to the description element of said hierarchical memory representation that is associated to the last identification information of said sequence.

7.          A transmission system comprising an encoder as claimed in claim 5.

8.          A transmission system comprising an decoder as claimed in claim 6.

9.          A signal for transmission over a transmission network comprising an encoder and/or a decoder having a memory storing at least one table derived from an XML-like schema, said XML-like schema defining a hierarchical structure of description elements, said hierarchical structure comprising hierarchical levels, parent description elements and child description elements, said table containing identification information for solely identifying each description element in a hierarchical level, and structural information for retrieving any child description element from its parent description element, said signal embodying at least one fragment representing a content of a description element, called encoded description element, and a sequence of identification information being associated in said table to said encoded description element and its parent description element(s).

10.          A table intended to be used in an encoder for encoding a description element of an instance of an XML-like schema, and/or in a decoder for updating a hierarchical

memory representation of an instance of an XML-like schema, said XML-like schema defining a hierarchical structure of description elements, said hierarchical structure comprising hierarchical levels, parent description elements and child description elements, characterized in that it is derived from said XML-like schema, and it contains identification information for solely identifying each description element in a hierarchical level, and structural information for retrieving any child description element from its parent description element.